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SATURDAY, OCTOBER 26, 1839.

JUDGE BUEL.

The wide spread feeling of sympathy and regret, experienced by the public at the unexpected death of Judge BUEL, whose decease at Danbury, in Connecticut, has been already noticed in this paper, is fully shown by the numerous respectful notices which have appeared in many of the journals of the day. In somewhat delaying the remarks which the loss of our respected friend and cotemporary seemed to render proper, we have been influenced by the hope of making our notice more full and complete than a more hasty one could have been. We shall, however, be able only to give a general outline of his course, a sketch which will, we hope, be hereafter filled up for the benefit of that public he so long and efficiently labored to serve.

Like Franklin, Judge Buel commenced his career in a printing office, and perhaps a still farther similarity may be traced in the eminently practical turn of his mind, which, allowing but little to mere theory, conceded all to practical utility. He first, we believe, edited and published a Republican paper at Poughkeepsie in Dutchess county; which was followed by another issued at Kingston in Ulster. From Kingston he removed to Albany, where for a number of years he edited and published the State paper, (the Albany Argus,) with ability and success. Judge Buel was a Democratic Republican of the Jefferson school, a plain and forcible writer, and one that treated his opponents with courtesy and amenity. In his office of state printer, he succeeded in saving a handsome property, which he invested in a farm, and to which he retired when he disposed of his interest in the Argus. Judge Buel had not taken an active part in politics for some years, though he was selected as the opposition candidate to Gov. Marcy in 1836.

It is as a skillful and practical farmer; an efficient and undeviating advocate of Agriculture, of its legislative aid and protection, and its advancement in all its forms; and as Editor of the 'Cultivator,' however, that Judge Buel will be longest and most favorably known. When he disposed of the Argus establishment, he purchased, much to the surprise of his friends, a tract on the sand plains some two or three miles from Albany, to the improvement of which his first attention and efforts were devoted. This soil was so light, so broken up by clay swamps, and so uneven, that it was considered worthless for the purposes of agriculture, and abandoned to the scanty growth of pitch pines that occupied the surface. As a theorist, Judge Buel thought differently, and the result proved that his reasonings were well founded. He was aware that the sand hills furnished the means of correcting the clay, and that in the latter a remedy for the lightness and porosity of the former existed. The swamps have been drained, the sand hills leveled, and the whole converted into one of the most fertile and valuable spots in the state. To a skillful rotation of crops Judge Buel owed much of his success; root crops, clover and plaster, corn, and other grains alternating, and all directed with skill as a source of present profit and a permanent amelioration of the soil.

Judge Buel was Secretary to the Board of Agriculture at its first establishment, and a most active promoter of the great objects it had in view. It was principally under his direction and supervision that the excellent papers published in the volumes issued by that board were called forth, and those contributed by himself are not among the least valuable in that collection. As President of the present State Agricultural Society, his labors have been unceasing to perfect its more complete organization and efficiency; and to him and some of his worthy associates we owe much that has been done to awaken the attention of the public to agriculture, and particularly to lay the foundation of an agricultural school that should be an honor to the state, and the class it was especially intended to benefit. If all has not been accomplished for the great interests of agriculture that its friends could have wished, the failure cannot be attributed to a want of exertion on the part of Judge Buel. From the first, he has been the firm and unwavering friend of legislative encouragement, and appropriations to the aid of agriculture; to the formation of state and county agricultural societies; and its advancement by every means within the power of the state. For six years past, he has been the conductor of the 'Cultivator,' a paper devoted most ardently and efficiently to the cause of agriculture, and which in ability and utility, has had few equals among agricultural papers in any part of the world. It is here, that his loss to the public will be most severely felt.

Judge Buel was a book farmer, in the strictest sense of the term. His knowledge of the business, of its details and management, had been acquired from books and from observation. He was a farmer *con a more;* because he loved the pursuit, and held it to be the honorable basis of all others. The knowledge he had acquired from books and from reflection, he carried into practice on his farm, with a skill and success that should silence forever the unworthy clamor against the application of science to the advancement of agriculture. He felt his obligations to books, and was never backward in urging upon all, upon whom his influence could be brought to bear, the advantage and necessity of a thorough acquaintance with those general principles of agriculture which science and practice have united to develop, and which have been embodied in works devoted to that cause. In no way was his familiarity with those principles, and his ability in enforcing and explaining them more conspicuous than in the addresses before various agricultural societies, both in this state and out of it, to the delivery of which for many years he had been frequently called by those who wished to avail themselves of his ability, knowledge and influence; calls which were rarely declined, except from the most urgent necessity. It was in the performance of a duty of this kind that he was arrested by death while among strangers and far from home.

Few men have passed as public a life as Judge Buel, leaving as stainless and irreproachable a character.—Mild in disposition, agreeable in his manners, with a deep sense of moral and religious obligation, it is not strange that he had many friends, and those too among those whose friendship is most valuable. A patriot in the noblest sense of the term, he loved and served his country for his country's sake, above those blighting partizan influences which so often serve to check, arrest or chill, the best aspirations of the heart. It was enough that the state or the nation were to be benefited to secure for any cause his cordial co-operation and support. It is pleasant to dwell on such a character as Judge Buel's, but we must close with the remark, that by his death the state has lost one of its most honest and honorable citizens, and agriculture one of its most efficient, able and untiring advocates. Peace to his memory.

Essex Agricultural Show.

The show of this spirited Agricultural Society went off in fine style at Georgetown, near Boston, on the 26th ult. The performances consisted of a plowing match with four teams of one yoke of oxen each, two teams of a pair of horses each, and eight teams of two yoke of oxen each; a drawing match to test the strength of such teams as chose to contend for the prize; a show of cattle, swine and agricultural implements; and an exhibition of dairy produce, vegetables, and manufactured articles.

The show of cattle was very good, particularly of working cattle and cows. Among the latter was one animal, from the milk of which fourteen pounds of butter per week, had been made for a considerable length of time. Of the swine exhibited, the Berkshires bore away the palm decidedly, and Mr. Colman remarks, "that the Berkshire, of all others, must be considered the poor man's, or the small farmer's hog, as coming earliest to maturity, and giving the greatest amount of pork for the expense incurred.

Of the dairy produce—the cheese was fine in appearance; but the butter was pronounced inferior, not exhibiting neatness and care in the manufacture. On this point most of our American dairies are miserably deficient; and in no country can worse specimens of butter be found than in our cities; we may also add, that better specimens than are occasionally met with can nowhere be purchased; the subject for regret is, that these examples are not more extensively (as they easily might be) followed. As a proof that there is no want of encouragement for the production of a superior article, it is stated that within a few months, butter has been sold by the quantity in the Boston markets for thirty-three, thirty-seven, forty-four, fifty, and even sixty cents per pound. Butter of a superior quality will, where the maker is known, always command the highest prices, and such as will amply repay any extra care and attention in the manufacture.

Among the vegetables presented were Rohan potatoes, squashes, &c. From ten pounds of the seed of the Rohan potatoe, Dr. Robinson of Newbury, produced fourteen and a half bushels, weighing sixty-five pounds per bushel, or about 100 per cent. Mr. Balch exhibited five squashes from one seed obtained at the Cape de Verd Islands, the joint weight of which was 275 lbs. Fine specimens of the Dutton and other corns were exhibited, and also some of the China tree corn in a state of maturity! We are glad to hear that this corn, respecting which our table is loaded with complaints against the disseminator, Mr. Thorburn, has any where obtained a mature state, certainly none of the many pieces we have seen in this part of New-York, have given promise of reaching that point the present season. We are compelled to dissent from the opinion expressed by Mr. Colman, that this kind of corn will 'prove a valuable variety,' as the frost fatal to corn did not appear here until the 27th of September, and then found it, as a whole, but little, if any, past the proper roasting state.

The Rev. Allen Putnam of Danvers, a practical farmer, delivered the address, in which he stated many important agricultural facts from personal knowledge, one of which was, that from the same dairy, the same number of cows, and the same cows, fed in the same pasture, in the same way, and in the same season, three different dairy women made in equal periods of time, one 17, one 23, and one 27 lbs. of butter per week.

We have only room to add, that as the past with the Essex Society has been alike prosperous and useful, we trust the future with it will not be less honorable or successful.

LARGEST.—Mr. R. Johnson, of Middletown, raised a squash in his garden, weighing *one hundred and fifty-two pounds!* This enormous vegetable was sold for five dollars.

DICTIONARY
OF
TERMS USED IN AGRICULTURE,
AND IN THE SCIENCES MOST INTIMATELY CONNECTED WITH ITS ADVANCEMENT.

[Continued from page 299.]

CULTURE. The process by which the soil is prepared, the seed sown, and the plant brought to maturity, is demoninated culture. The preparation of the soil, and the sowing of the seeds, are usually called the previous culture, that care and attention which follows the springing of the plant, is known as after culture. In this country no after culture is given to wheat, while in Europe it frequently receives the same careful after culture of weeding and hoeing, that is here given to corn and potatoes. It is probable that an increased attention to the culture of wheat will become necessary here, as the natural fertility of the soil decreases, and the weeds that multiply under an improvident system of agriculture gain a more extensive and permanent foothold in our soils.

CURCULIO. This is a numerous class of insects belonging to the coleopterous class, (or bugs,) and in various ways are a severe annoyance to farmers. They prey on grain, on plants, and on fruit, though it is on the first and the last that they most usually fall under our notice. The weevil, *curculio graniarius*, that at times produces such frightful ravages in our storehouses, and which in some countries renders the preservation of grain for any time impossible, is perhaps one of the most injurious. This insect is of a pitchy red color, only about two lines in length, and when it obtains access to a granary, pierces the kernels with a borer in which an egg is deposited. This is soon hatched, and becomes a small white, soft worm, which preys on the inside of the kernel, and in time becomes a perfect insect, ready to propogate its species and perpetuate mischief, as long as grain can be found in which to deposit the egg. Degur, the celebrated entomologist, says that a few hundred weevils admitted to a granary, would, in the course of four or five months, destroy between one and two hundred millions of grains. But a single hole is made in a kernel, and but one egg deposited in each. Barley is a favorite grain with the curculio; and small heaps of this placed in granaries, and occasionally removed or subjected to boiling water, are used in some places as decoys for the insect, and to prevent their settling on the wheat. Another kind of the curculio attacks fruit, particularly plums and cherries. A kind of half moon incision is made in the young fruit by a forceps like instrument, and under the flap so lifted an egg is deposited, which speedily becomes a little worm and feeds on the juices and pulp of the fruit. A little attention to the trees about a week or fortnight after the settling of the fruit, will usually save much of it from their attacks. The curculio during the day lies concealed in the top of the tree, and a sudden and violent jar will dislodge many of them. By spreading cloths on the ground under the trees, the falling curculios are caught, and may be destroyed. The fruit that contains the grub falls to the ground, the worm takes refuge in the earth, and in the spring emerges the perfect insect, ready to renew its operations on the young fruit.—Where swine can come to the trees, they will destroy the worm as it falls in the fruit, and thus render an essential service to the fruit grower. The pea-bug is another species of the curculio, and commits great devastations on this valuable plant. The better way to prevent this insect, is to never sow seed under two years old, as in this case the perfect insect has emerged, and will not be at hand to commence operations on the young pea vine or pod.

CURRANT. This is the fruit of a well known shrub, sometimes found wild, but generally cultivated in gardens. There are red, white and black varieties, and the utility of these fruits in domestic economy is well understood. The fruit of the black is much prized for its medicinal qualities, while that of the red and white is preferred for wine, syrups and jelly. The white currant in its largest varieties, when fully ripe, is partially transparent, and is a beautiful and delicious fruit. With white sugar, it makes a colorless wine of fine flavor and keeping well. In cultivating the currant, the best method is to take shoots of one or two years growth, and before inserting them into the earth as cuttings, to carefully cut out with a sharp knife all the buds below, and for a few inches above the surface of the ground; in this way the bushes have a tree form, and the fruit will be far better, than if grown in the close bushy shrubbery where it is usually cultivated. What are called Zante currants, and may be purchased at the shops, are not properly currants, but small kinds of grapes, dried for sale.

DAIRY. Establishments devoted to the preservation of milk, to the making of butter and cheese, are called dairies; and farms on which cows are kept for these purposes, are called dairy farms. If the milk furnished is made into cheese, it is called a cheese dairy; if into butter, it is called a butter dairy, &c. Dairies for furnishing milk for use, are principally found in the vicinity of large cities, and some very large ones are found near all cities of note in this or other countries. It is supposed that not less than 30,000 cows are kept for the supply of London with milk, and dairies of from 50 to 300 cows may be found in the neighborhood of our principal cities. Such cows are kept in stables, and too frequently fed on materials that render the milk given of an inferior quality, if not positively injurious.—None but pure sweet pastures can furnish cows with a food, enabling them to supply the best milk, and it is certain there is not more difference between chalk and water, and the usual milk provided in cities, than there is between the last and that produced by those fed in the rich clover pastures of the country. The dairy business is a healthy and profitable one, not perhaps giving returns so great and quick as grain growing, but requiring less labor of an expensive kind, causing very little loss in the wear and tear of implements, and improving instead of exhausting a farm, as grain growing is apt to do. As to the breed of cows the most suitable for the dairy, it would seem as if public opinion abroad, as well as in this country, is much divided on the subject.—Some prefer the Ayrshire, some the Hertford, some the Devon, and others the Durham or Short Horns. The truth is, there is no breed uniformly good for the dairy, and great milking qualities have never been fixed in any kind of cattle, as has size and propensity to fatten early, in that of the short horn. Good cows may be found in all the breeds and crosses, and many of our native cows have exhibited dairy qualities rarely rivalled, if equalled, by the best of the improved breeds. Mr. Colman's Report on the Agriculture of Berkshire, Mass. will show this. The best dairies in all countries are made of selected cows, and the neater and better they are kept, the greater will be the profits of the dairy. In every thing connected with the management of such an establishment, from the feeding of the cows to the delivery of the milk, butter or cheese in market, the most scrupulous neatness and order should be observed, or the products will be proportionably injured, and their value lessened.

DAISY. This plant, particularly the variety known as the *chrysanthemum leucanthemum* of the botanist, oxeye, or white weed of the farmer, is one of the greatest pests where it is permitted to get possession of the soil. It grows so thick as to preclude the appearance of the grasses, or exterminate them if they already exist. Thorough cultivation is the only remedy where they are present, but the farmer will find if he destroys the plant effectually on its first appearance, even if requiring considerable labor, that the time and exertion are well expended. This plant is readily known by its white blossom, and by its unfortunate prevalence.—There is another plant called the yellow daisy by some, by others, butter cup, or crowfoot, very common in wet meadows; but this plant is a species of Ranunculus not a daisy. It is, however, of no value, and if its growth and spread is not checked, it injures the other grasses materially. Some have supposed that the crowfoot when made into hay, if eaten to any extent by cattle or sheep, induced disease among them.

DAMPS. Carbonic gas being heavier than common air, has a tendency to accumulate in all low places, such as mines, pits, wells, cisterns, &c., and in situations favorable to its formation, is sometimes found in such quantities as to be instantly fatal to animals. This air or gas is known by the name of damp or *choke-damp*. The Grotto del Cano at Naples, and the valley of the celebrated Upas tree of Java, are instances of the fatal effects of accumulated carbonic gas. Where this gas exists in injurious quantities, it extinguishes flame, hence we are fortunately provided with the means of ascertaining its presence; and no one should venture a descent into any of the places named without first lowering a candle or lamp. Carbonic gas is generated in large quantities in the vats of cider distilleries, where a small quantity of the liquor remains for any time; or in brewers' vats, in which the acetous fermentation is allowed. Numerous deaths occur yearly from the operation of this gas, and farmers and others, who are particularly exposed in clearing wells, should always take proper precautions. There is another kind of damp called the *fire-damp*. This is found in coal mines almost exclusively, and is a mixture of carburetted hydrogen and atmospheric air, constituting a very inflammable body, and exploding with great violence when placed in contact with the flame of a candle. One of the greatest triumphs of science was the discovery of the safety lamp of Sir H. Davy. Previous to the invention of this lamp, the most frightful accidents from explosion were of common occurrence in the coal mines of England, now they are unknown.

DECOMPOSITION. This is a term employed in chemistry to denote the resolution of a compound substance into its constituent parts. In agriculture it is principally used to signify the process by which animal and vegetable bodies pass into a state that renders them serviceable as food for plants. During life, the elements of organic bodies, whether animal or vegetable, are held together by vital affinities, under the influence of which they were at first united. When life ceases, these elements become subject to other laws, those that govern inert matter. The original affinities that were suspended during the vital organization again operate, other combinations are formed, and the organized structure passes to decay. The rapidity and extent of decomposition are in a great measure depending on the circumstances under which the process takes place. Substances kept perfectly dry and at certain temperatures decompose very slowly, or not at all. Moisture, unequal temperature, or the presence of certain agents, aid the process materially. It is by decomposition that all manures are formed, and it is by regulating, aiding and combining the action of different substances, that the most valuable of composts and fertilizing powders are prepared. To preserve plants, timber and vegetables from premature decomposition, has occasioned much research, and though in some cases successful, there are others in which all efforts to arrest the original laws of action have proved unavailing.

FALLOWS.

There is no process in agriculture more important to the farmer, or that contributes more to the durability and fertility of the soil, than fallowing, when skillfully performed; and probably there are few processes, the reasons for which are more imperfectly understood, or the principles that render the operation necessary, more completely overlooked, than in this case. With most farmers, it is sufficient to know, that by fallowing the ground is made fine, and thus fit for the reception of the seed, while the more important changes the soil undergoes by contact with the atmospheric agents, and which are indispensable to insure fertility, are unheeded.

The mechanical part of the process of fallowing is very simple. In our country it usually commences in

the forepart of summer, and consists of two or more plowings and harrowings, as time will admit, or the earth seem to require, until the seed is sown in autumn. This mode, though obviously defective, as not allowing sufficient time for the action of the air and other agents, is still better than simply plowing up the land and sowing the seed immediately upon it, as is practiced by many. In Europe, with the best farmers, the process commences in autumn, and the land thus rendered uneven by the plow is left to the effects of frost, which most materially aids in pulverizing the soil, and rendering it fit to commence operations upon earlier in the spring than would otherwise be practicable. Late in the season, or early in the spring, there is much land that cannot be plowed with benefit, as it will knead, or smooth over, which will shut out air, and obviate the end in fallowing. Such soils must be drained, or only plowed while dry. From five to six plowings, and as many harrowings or dressings by the scarifier, are usually considered proper, before the requisite fineness and æration of the soil is obtained.

Soils naturally good and friable require but a comparatively little labor to bring them into a proper state for the seed, or restore their fertility when partially exhausted by cropping; but those in which the original earths are less favorably blended, and are tough and stubborn, require a longer time for pulverization, and the consequent atmospheric action on the particles.

The particles of matter, or the earths, when at rest, gradually assume an equilibrium in their position and affinities, unfavorable to the action of fertilizing agents. This balance of affinities is broken up by the plow, the particles are separated and exposed to the action of water and air, fermentation is essentially promoted, and the earth rendered permeable to the tender roots of young plants. As a soil in its quiescent state has formed its chemical changes, and its particles may be considered as filled with the substances of which their position would admit the combination, it is evident that to give greater fertility, new particles must be exposed, and new chemical changes produced, until the whole mass is saturated.

To show how the changing the position of the particles of matter promotes fermentation, we have only to look at the manure in a heap or yard, part of which has been so pressed as to exclude air, and part has been moved by the trampling of animals, or otherwise, so as to be exposed to the moisture and the air. It will be found that the fermentation in the last is much more advanced than in the first; and that the moving of the hard pressed, by admitting the formation of new chemical changes, is much hastened in its decay. So with soils; when broken up and pulverized, this important end, fermentation, is gained, which in those compact and unmoved is impossible, as the free action of the atmospheric agents, moisture and air, are excluded. Both air and water undergo decomposition when brought in contact with newly turned soils, and act an important part in the fertilization of the earth.

In all soils there is always more or less water and air, but in the unmoved soil they are in a state of comparative rest, they have parted with all the valuable gases or salts they contain to the earths with which they have come in contact, and can of course contribute no further to chemical changes; now if this soil is disturbed, new surfaces are exposed to the water and air as they are renewed, and a continuation of the beneficial results is certain. The chemical combination of water with soils, is on much the same principle as water with lime, though the adhesion or union is not so strong; still this union or affinity is increased by the frequent moving of the soil. This is proved by the fact, that portions of soil were taken from a cultivated and from an uncultivated field near by, and subjected to examination, and it was found that the fallow retained moisture longer than the exhausted part, and when both were equally dried, the fallow earth acquired moisture from the air much more rapidly than that from the uncultivated field. This fact is interesting, as showing the absurdity of the docturine which maintains that corn or other vegetables should never be hoed in very dry weather. The contrary is the fact, and the oftener the earth is moved the better.

Moving the earth and pulverizing it thoroughly, while it enables it to feel more fully the effects of air and moisture, also gives it a higher temperature, and of course renders it more congenial to vegetation. Thus a thermometer inserted into the earth finely pulverized a few hours before, to the depth of three inches, rose two or three degrees higher than when placed in undisturbed earth close by. This is accounted for by the partial circulation of the warmed atmosphere through the loosened and friable soil. Plowing or moving earths, however, when they are wet has the effect of destroying this permeability, by smoothing the exposed superfices, and rendering them hard and solid when dry. That pulverization increases the chemical powers of the soil is evident from the fact, that manure of any kind will produce a more lasting effect on fallows, than when applied to lands not cultivated or moved.

Mr. Bland says—

"The best remedy, when in the process of fallowing it is necessary to plow lands too wet, is to plow the furrows upon edge as much as possible, that the water may drain away the easier, with a greater surface being thus left for the action of frosts, sun, air, &c. to operate upon."

It is the custom with many farmers when they plow their summer fallows, to have them harrowed down as smooth as may be, between the times of plowiug. This practice is wrong; as the ground should be left in that manner that gives the largest surface to the air. The harrowing, therefore, after the first breaking up, should precede the plow, until by their combined operation the soil is made fine enough for the reception of the seed. There can be no doubt that the æration, and consequent fertilization of soils, goes on more rapidly when the temperature is the highest, or during the summer months, or when vegetation is most vigorous, as the chemical changes dependent on fermentation and combination are then the most active; and one plowing at that season, for beneficial purposes, may be considered almost equal to two at another; yet plowing at other times, when the soil is fit for it, cannot be neglected without injury.

As decomposition goes on more rapidly and beneficially in most substances when covered, but exposed to moisture and warmth, there is a decided advantage gained by fall plowing, in covering the weeds, stubble, &c. that may be on the surface, so that a longer period for their decomposition will be secured for the benefit of the next crop, and their mechanical influence will be favorably exerted in keeping the land light, and preventing that compactness in texture so unfavorable to drainage. On lands where injurious weeds are found, such as the thistle, Johnswort, daisy, &c., the roots of which survive the winter, fall plowing to be followed by a summer fallow has a good effect, as exposing to destruction by freezing many of their roots, and thus facilitating the cleaning of the soil.

In commencing the spring tillage, it is indispensable that the earth, whether it was plowed in the fall, or is now moved for the first time, should be so dry as to remain friable, and show no symptoms of kneading, and if the fallow is to be manured, perhaps no time is better for that purpose than the spring. This is certainly the case, where barnyard manure, containing, as unfortunately most of it does, foul seeds in abundance, is to be used, as by this early application, the seeds have time to vegetate, and by the repeated plowings be destroyed before the seed of the grain crop is put in. If the land is clean, and the manure compost, or fully rotted, the application of it may be delayed till the last plowing, so as to be turned under with the seed sown, merely covering being all that is required of manure. The Canada thistle is the great enemy that the wheat grower in a large part of our country has to contend against, and this pest can be met no other way successfully than by thorough fallowing. Where the thistle, or other pernicious weeds, tenacious of life, exist in lands fallowed, going over them after each plowing and picking or gathering all that appear, may be advisable, as greatly aiding in freeing soils from their presence; but in any event the ground should be moved as often as any shoots make their appearance, as this is found to check or destroy them more surely than any other method of treatment.

To derive the full benefit which soils are intended to receive from the process of fallowing, as long intervals should occur between the plowings as is consistent with the number required to bring it into the proper state for the seed, or the eradication of the weeds with which it may be infested. Many of our farmers allow so little time to intervene between their ploughings, that the changes produced on soils by the action of light, air, moisture, &c. have time for their accomplishment, and nothing is gained by the process but the simple pulverization of the soil. This, it is true, on lands as fertile as most of those in newly cultivated countries are, may be sufficient; but experience proves that all lands are exhausted by cropping, and hence every reasonable precaution should be used, not only to arrest the progress of deterioration, but prevent its commencement.

It has been found in England that on most of their long cultivated lands, in which clay forms a prominent ingredient of the soil, that immediately below the earth usually moved by the plow, a hard strata of some two or three inches in thickness is found to exist, almost impermeable to roots or to water, and has a pernicious effect on the cultivation of crops. This artificial hard-pan, or moorband-pan, as it is called, is attributed to the pressure of the plough on the earth below, and especially to the pressing, smoothing effect of repeated plowings, at times when the earth was in that state of wetness that disposed it to knead. The fact of the formation of such a body, to break up which requires the application of the deep subsoil plow, should prevent farmers from always plowing at the same depth, and effectually banish shallow plowing from thorough fallowing. After the earths have been converted into soil by deep plowing, exposure to atmospheric agents, and combination with vegetable matter to the depth of eighteen or twenty inches, the formation of such an obstacle to cultivation can scarcely take place; and that such a depth can be obtained is evident from the experience of Marshall in England, and Powell in this country. By gradually deepening his plowings, the latter converted his soils from shallow ones to fine friable earths, of the depth of sixteen inches, and the excellence of his crops bear testimony to the propriety of the method pursued by him.

The change produced on soils by their exposure to atmospheric agents in the process of fallowing is denoted by their change of color; and the effects are an increase of the power of absorption; a strengthening of its affinities for vegetable and animal matter; a greater friability or lightness of the particles, so far as their adhesion is concerned; a greater permeability to the roots of the cultivated plants; and a general restoration of the fertilizing and productive properties of the soil.—Tull, the restorer of good farming in England, considered pulverization alone, all that was necessary to preserve or restore fertility to a soil; but though he doubtless erred in excluding from his system the necessity of returning to the earth in the form of manures, the vegetation that has been taken from it in the form of crops; still it must be admitted that the pulverization effected by summer or thorough fallowing is one of the most efficient preparations the earth can receive, to fit it for the reception of seed, and the accomplishment of the great end of good husbandry, the production of crops.

Judge Buel was attended in his illness by his only daughter, "of whom he took an affecting and final leave, in the full possession of his mental faculties, a few moments before he calmly breathed his last." He was on his way to New-Haven, and the address he was to deliver was taken there and read before the Agricultural society. His son had been with him, but left for Albany to accompany the family to Danbury. At his departure the sickness of his father was not considered dangerous, but soon after he left he was taken worse. His first attack was cholic, which yielded to remedies but bilious fever supervened which was fatal.—*Po T*

COMMUNICATIONS.

MANAGEMENT OF BEES.

Mr. Tucker—Having been a reader of your paper about two years, I have not seen but one or two articles upon the management of bees. Feeling an interest in the subject, I will give you my views concerning the protection of the honey bee. Some few years since, bees were kept in abundance in this section, with good success; nothing appeared to trouble them. But of late years, it is almost impossible to keep bees, on account of the millers getting possession of the hive, and thus destroying them. I have tried every new method I could devise, or hear from other places abroad, but all proved to no success. There are only here and there a swarm of bees kept, all have dwindled away, and honey is becoming very scarce in this region of country. A few years ago I was in the western states, and I found bees were kept in great plenty and with good success; owing no doubt to its being new. This country, no doubt, was as good when it was first settled, as the western states are at the present time. The only method for us to pursue in this country now, to raise bees, is to build small buildings, say about four by six, and let them stand three or four feet from the ground, and have it perfectly tight, save a very small place for the bees to go out and in at their pleasure. In this way, in my candid opinion, we can keep bees as formerly. A building of this construction will not cost more than ten or twelve dollars, and will last a great many years. There will be no trouble of the bees swarming and going off into the forest, (as is generally the case with bees kept in small hives,) and any time you wish for the sweets of life, you can go to your bee house and partake of such a quantity as you may desire, and not injure the bees in the least. I do not like the plan (that is so much carried into effect) of killing such industrious creatures as bees every time we want honey, when there can be other ways devised and not destroy them. Some have proposed burying bees in the winter season for their protection, but I do not approve of the plan. *I have seen it practiced too much, for my satisfaction, to believe any thing in it.* Those who have heretofore made it a practice to bury bees in the winter, have come to the conclusion that it is not a very good plan, and have entirely abandoned it, and commenced erecting small buildings for their protection. I believe, the higher bees can be kept from the ground the better they will do, (especially in this country,) where the moths and millers are so troublesome. What made me make this supposition, was, when bees are found in the woods, they most generally are doing well, and have a great abundance of the sweets of life. We may devise all the means we possibly can, yet bees can never be kept to so good success as in former times. We may, by a great deal of trouble and care, keep bees, by erecting the above described buildings, fitly prepared, and devote our leisure moments to their protection, that the miller nor moth shall not destroy their useful works, "which no man can doeth"—

"How busy the bee, that employs each shining hour,
In gathering honey from every blossoming flower."

October 10, 1839. W. S. T.

The Mercer Potatoe.

Mr. Tucker—It is interesting to farmers to read in your very useful paper, accounts of the produce of fields in different seeds and roots. I therefore wish to state the yield of one potatoe, (called the Mercer potatoe.) I brought one potatoe from Philadelphia in my side pocket, 9th day of June, 1837—planted it, and from that one I dug this year one thousand bushels. I planted one potatoe this spring, and from that one I dug eight hundred and sixty-six potatoes. I have weighed a few of said potatoes, and their weight was as follows: 2 lbs. 4½ oz., 2 lbs. 3 oz., 2 lbs. 7 oz.; and they are a fine table potatoe. Yours respectfully,

Abner Hollister.

Cato Four Corners, Cayuga Co. N. Y.

Oxen vs. Horses.

Mr. Tucker—I think your correspondent, over the signature "Ox," in the 9th No. of the current Vol. of the Monthly Farmer, has fallen into an error when he makes the difference in keeping teams for one year to amount to $123—for were he to estimate the value of each team and its utensils at the end of the year, the result must be much less than that sum. Let us have the thing fairly represented. A Rustic.

Mr. Kemp, of Groveland, Livingston Co., planted last spring forty-eight eyes of four different kinds of Potatoes—one eye in a hill; the produce was as follows:

Rohans,	weighed 188 lbs.	
Early-English,	" 145	"—a fine sort for the table.
Saccoos,	" 138	"—this is the large, round, red potatoe.
Pink Eye, or Mercer,	" 111	" L. A. W.

From the Farmer's Cabinet.

Mould for Printing Butter.

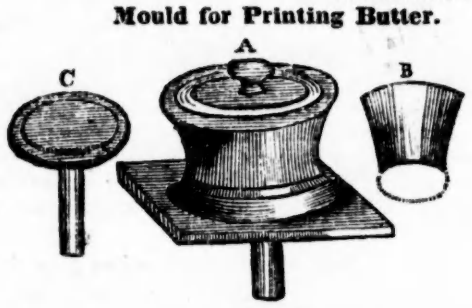

Fig. 43.

To the Editor of the Farmer's Cabinet.

Sir—I herewith send you for examination, an article, which, I think, should be in the hands of every farmer—certainly of every dairyman—and as I notice a communication in your last number (August) suggesting the propriety of making the office of the Farmer's Cabinet a "*Depository of Models and Improved Implements*," &c., I would most respectfully tender the small article above figured. It is called a "Butter Mould or Stamper"—is very simple in construction, and can be had for a mere trifle. It is not generally known or manufactured, but any mechanic can easily make one. It will last a long time, and needs no repair.

Description.—The butter stamp consists of a small round box, fastened to a square piece of deal, through the bottom of which is a hole for the introduction of the handle of a second box, which fits within the first. The second box is similar to the first, except it is detached from the bottom, and consists of 3 pieces of wood hollowed out and made to shut close to each other. When the handle with the bottom attached is drawn down, the pieces fall into a grove running around the bottom of the 2d box. The butter is weighed and placed in the box, the handle being down. The stamp is then placed on the top of the butter, and forced down hard, giving it the proper shape and print; after which the butter is turned out complete by forcing the bottom up, by means of the handle seen in the figure, which causes the second box to fall apart, as it were, and thus releases the butter. This is a very expeditious way of printing and moulding butter.

Fig. A, represents the article with the butter in it—the stamp on and all ready to force out. B, the part or one of the sides of the three sided inner box. C, the bottom with handle. W.

New Castle Co. Delaware, Sept. 24th, 1839.

From the Farmer's Cabinet.

On the Manufacture of Sugar from the Beet.

Sir—The time has at length arrived for the resuscitation of the Beet Sugar cause, and it only requires the energies of some strong-minded individual to call it back to life and vigor—not that it has ever shown a *symptom* of decay—it has only *slumbered*, to recover from the effects of that over-excitement, which it experienced on its first introduction to public notice; and a period of three years has been requisite to enable it to recover its natural state of equilibrium. It has now only to hope that it might go forth on its own merits, under the management of some one competent to draw forth its energies; with a capital sufficient to sustain it, and time allowed to carry out the operations, beginning with the cultivation of the root, and ending with the manufacture of the sugar therefrom. The way is plain, the success certain; it only deprecates over-nursing, and a too hasty expecting of final results; courting, in the mean time, the closest scrutiny, and rigid examination on scientific principles.

The time which has elapsed, has afforded ample opportunities for experiments, and these have strengthened the hypothesis, that sugar, equal to that from the cane, can be made from the beet, not only to profit, but with manifest advantage to the agriculture and husbandry of the country; as also, to the system of feeding cattle and sheep for slaughter; while, for the dairy, it is universally admitted that the sugar beet is a crop, superior to every other, both as to quantity and quality; many of the crops, the present year, averaging thirty tons per acre; the value being superior to corn, as food for cows.

As this is the proper season to commence operations in earnest, permit me to sketch a plan which only requires to be acted upon with vigor, to prove a source of great profit, to those who have sufficient capital to invest in the undertaking.

1. Not less than from one to three hundred acres of beets to be cultivated the next season, in a light and suitable soil near the city, from whence manure can be obtained in any quantity, with short carriage. The land should immediately be ploughed very deep, and left so to lie until the spring; and during winter, the dung should be carted to the land, and be placed in large heaps, preparatory for use in the spring: and as soon as the season will permit, the land should again be ploughed, and prepared for an early spring sowing, March and April being the best months; the crop should be well attended and kept clean.

2. During the winter and next summer there will be time sufficient for the preparation of machinery, and the erection of suitable buildings, both for the sugar house and fattening establishments, and also for fixing the different apparatus, so as to be in the most perfect order by early autumn, when the crushing might be commenced in September, and be continued through the winter; and as soon as the land is cleared of the crop, it should be ploughed very deep and be thrown into high ridges, with plenty of water furrows; and on the same land, beets should again be sown in the spring after proper stirring and working. This system might be pursued for any length of time, with the certainty of obtaining larger crops, with one half the trouble of cleaning, for the beet is a meliorating crop, and may be sown many years in succession on the same soil, with less and less labor in the cultivation; the land having become clear of weeds, and a greater depth of staple being added to it, by deep ploughing before winter. In the report, published by the "Beet Sugar Society of Philadelphia," there is an account of a field, which was preparing for a sixteenth crop of beets in succession; several of these crops had been grown for seed, but for these *only* had manure been applied; and yet, the fertility of that field had ever been on the increase.

3. I would strenuously urge, that the business be taken up as one of *profit and loss*, and not as an experiment; and that it be entered upon with resources, such as are considered sufficient for establishing any other concern of equal magnitude. Every one knows and admits, that the making of sugar is a business that can never fail—that must be carried on—the appetite for it is still increasing, "growing with our growth, and strengthening with our strength," and the consumption will keep pace with the production, until the end of time, for every one is a consumer of sugar, in some shape or other; and generally speaking, it is profitably concerned in the fabrication—in the hands of competent persons, decidedly so.

The cultivation of the beet, and the rearing and fattening of stock, are legitimate objects connected with the sugar house; and *united* they form a suitable employment for the man of cultivated mind, whose education and pursuits have unfitted him for "dashing into the far west, with his broad-axe upon his shoulder," or the daily toil of growing his vegetables and exposing them for sale in the market in his own wagon. Sugar growing, then, is destined to become a resource to those who, from reading, study and observation, have become "enamoured of rural affairs;" by it is embraced all that has ever "charmed the eye, the ear, or the heart of the modern agriculturist;"—here, he indulges his taste for machinery, chemistry and the arts, and fabricates a tropical luxury in his own mild and healthful region, by means, too, which do not deprive him of his nightly slumbers, or inflict upon him the pain of urging his *servants* to exertions, endangering health and even life, lest a change of season should mar his prospects for a whole year.

Is he fond of rearing fine stock, and particularly that noblest of all animals, the horse? If I could take him to the magnificent establishment of Mons. Hamoir, near Valenciennes, in the heart of the Sugar District of France, and introduce him to that generous family within the house, and to those perfect and beautiful specimens in the stable and barn-yard, where I saw thirty oxen, of the Durham breed, fattening on the refuse of the sugar house, and the dairy cows of the same breed feeding on the same—fifty plough horses in one stable, of the largest Flemish breed; seven saddle and carriage horses, reared from the mares of these plough teams, by a cross with the stout English blood horse; five three year old colts, for the carriage, and hunters, of the same breed; and four of one year old; all beautiful in

their form, and of superlative strength, and all feeding on the refuse of the sugar-house; I am sure he would be, as I was, *enamoured with the beet sugar business!* while to the philanthropist, in such a country as France as Mons. H. observed, the reflection that "the introduction of the growth of the beet root has added immeasurably to the moral and physical strength of the country," must be grateful indeed! Here I saw one hundred men and women digging the land for the cultivation of the beet, with fifty horses ploughing in the same field, for the same purpose; but I never saw a new house going up in France, except in the neighborhood of the beet sugar establishments! I remember, while walking over his fields with Mons. Hamoir, that he left me for an instant, to step into a fine piece of clover, to pull up a tall weed which he saw growing there, apologising for the weedy state of the land, as he had not yet time to thoroughly clean it, being busily engaged in beet sowing! is it any wonder, that he obtained an extra price for his sugar, at the refinery, amounting to one dollar and forty cents per hundred pounds, above his neighbors?

The conjecture, that larger crops, and more rich in saccharine, can be grown in this country than in France, has been fully verified; but even there, the yield in both has been surprising, in the estimation too, of a large sugar planter at New Orleans, who observed, "if you will insure me seven per cent. of sugar from the Beet, I will cultivate them, and make a profit of 150,000 a year," and I cannot resist the opportunity, to mention a conversation which I had with the late lamented Mr. Geo. Walker, of Holmesburg, who said, distinctly, "There are three things which I can promise you in this country; larger crops, more rich in saccharine, and a ready sale for all the sugar you can make;" and I am confident, that the quantity and quality of the crop is increased, by continued cultivation; the land becoming more suitable to its growth by deep ploughing, and thorough cleaning: a deep, clean, and well pulverized soil being essential to both.

In the report above mentioned, the average yield of sugar, &c. per acre is as follows, estimating the crop at 40,000 lbs. per acre, and six per cent of sugar.

Sugar, 1st and 2d quality,....2400 lbs.
Molasses, 2 per cent.....880
Cakes, 15 per cent.....6000

9200 lbs. per acre.

But at *nine* per cent. of sugar, which is obtained, and a crop of 60,000, the quantity which *can be raised* in this country, the account will stand thus:

Sugar, 9 per cent, ...5,400 lbs.
Molasses, 2 per cent.,.....1,200
Cakes, 15 per cent.,.....9,000

15,600 lbs. per acre.

Now, compare this yield with that from the sugar cane, even in some parts of the West Indies, and the difference will appear striking indeed. The following account is copied from Major Moody's Report of the estimate of the product and expenses of a sugar estate in Tortola, which may be relied upon, he having been appointed, by the court of chancery, receiver, to take charge of the plantation.

Sugar grounds, 135 acres.*
Yield of sugar, 80 hhds.@1,500 lbs. 120,000 lbs. 888 lbs. per acre.
Molasses distilled,—4400 gallons of rum.
Negroes employed, 83.

This was in the island of Tortola; the report contains another account, of a crop in the well cultivated island of Barbadoes.

Sugar grounds, 66 acres.
Yield of sugar, 116 hhds.@1600 lbs.,—185,600 lbs.,—2812 lbs. per acre.
Molasses distilled,—5226 gallons of rum.
Negroes employed, 120, and 30 children.

These estimates were published, to show the difference between productive and unproductive estates; the second pays nearly nine per cent. profit upon capital invested, the first paying 2½ per cent. only; the difference in favor of good management being 6½ per cent. profit. But compare even No. 2 with the best crops of beet, united to the best management, and the difference is very greatly in favor of the latter. Molasses given to the cattle, horses, sheep and hogs, will pay a profit five times as great as that to be obtained from rum in the West Indies; rendering even the refuse of the crops, when cut up and soaked for twenty-four hours, the most nutritious and palatable food. But at the *lowest calculation*, the profit upon the culture and manufacture of the beet is most ample; while the advantages to the cause of agriculture, husbandry, and the *mechanical arts* of the country, are *incalculable*.

* The produce on 135 acres of beets, at 60,000 lbs. per acre, and a yield of nine per cent. of sugar, would be—

	lbs.
Roots, 8,100,000 lbs.	
Sugar,	729,000
Molasses,	152,000
Cakes,	1,125,000
	2,106,000

It is not, however, my intention to recommend the manufacture of sugar from the beet to the agricultural part of the community generally—this is neither expedient or desirable. In the first place, the necessary outlay for improved machinery, without which no good results can be obtained, would operate as an interdiction, in very many instances; while the employment would be foreign to the habits and feelings of such persons generally, and would lead away their attention from the more important and legitimate objects of their calling. But I would recommend every farmer to cultivate the sugar beet as winter food for animals of every description; and should they at any time have more than they require for this purpose, a ready sale might be made at the sugar-houses, at a price which would often bring about three times the value of the land upon which they grew. The real value of this inestimable crop will not be fully known, until it is cultivated to the full extent of the wants of the country. The system of fattening cattle and sheep *in the winter*, is attended with great profit; they are purchased lean, at that part of the year when they are cheapest, in consequence of the approach of winter; and a friend has just reminded me of a mode which he once adopted in the expenditure of a crop of sugar beets, which proved very profitable. He purchased cows and calves, at the commencement of the season for taking up the crop, which he fed in stalls, in the first instance with the leaves or tops, as they were cut off, permitting the calves to take all the milk; after the tops were expended, he commenced on the roots, allowing each cow two oil cakes a day. In the spring, the calves were sold to the butcher, very large and fat, and about six months old, at astonishing prices; the cows were then permitted to go dry, and in six weeks they were also sold fat, for large prices, at a season when beef was scarce and dear. One little cow, which he purchased for seventeen dollars, brought a calf which he sold for forty dollars, after which the cow was fattened the same season. This plan, he conceived, paid him better than any other of his labors; and, which was of immense importance, furnished a mountain of the richest manure, for future crops, which would have been dropped and dissipated in the fields, if these cattle had been pasture-fed in the summer. He remarked, "Sugar beets against all the world, for the fattening of cattle."

There is yet another mode of expending the sugar beet, which is not generally known; and although it might be considered by some persons as liable to objection, it may be substituted for corn and grain in the distillery, with the greatest advantage, rendering a spirit incomparably more pure and wholesome, and taking the place of enormous quantities of these articles, which are now distilled, to be expended in the *destruction of life*, instead of the *support* of it. I was present at the crushing of the first beet root in the island of Jersey, for the purpose of making *French brandy;* the establishment was conducted by men from the wine countries in France, and the spirit was exported to England, where it commanded the best prices in the market, without a suspicion that it had been drawn from the beet! its character being equal to the best old French brandies; and the business was a most lucrative one, until it was interdicted by an order in council from the British government; just as it is said they now prevent the manufacture of sugar from the beet in England; *they* have clashing interests, and cannot afford to allow their people to act as they think best for their own interests.

It is said, an extensive establishment is going up in an Eastern state, for the purpose of manufacturing sugar from the Beet, and that an agent has been despatched to France, to examine into the present state of the business, and to construct machinery for the same purpose in this country. Success is certain—but the greatest advantage to be obtained by such a step is, this person will see the process, conducted with the utmost facility, without difficulty or fear for the result; and to a profit which will, when taken together, astonish him: the *only* fear is, that a sufficient quantity of beets will not be obtained the present year, for the full employment of the works; and just as they are about to test the final results, their operations might be paralyzed, and the business be again doomed to abeyance. This consideration urges me again to press upon the *consideration* of those, who intend seriously to go into the concern, the expediency of not attempting more the coming season, than to grow very large quantities of roots, and erect a perfect establishment, for conducting the operations with improved machinery—a work, quite sufficient to occupy the time until next September, and fully too.

Other establishments are preparing to operate on a few acres of roots only—these are too much like experiments, and will be deprecated by all who have the ability to see that time and capital only, are required to insure the most perfect success. Would any one think, for a moment, of going into the cultivation of the cane, with the intention of establishing a sugar house, with any, but very ample means, and with time sufficient to construct and erect the necessary buildings, machinery and apparatus? Just so ought it to be with the beet sugar business; a business of far more real importance in its results, and with equal magnitude of enterprise; for a plantation of four hundred acres might be made to produce twenty four millions of pounds of roots; two millions, one hundred and sixty thousand pounds of sugar—upwards of fourteen hundred hogsheads—sixty-eight thousand pounds of molasses, and three millions eight hundred and forty thousand pounds of cakes—the two last articles, sufficient to fatten about eight thousand sheep!—a concern extensive enough to employ many hands, and of such importance as to demand a careful and circumspect distribution of the means adopted to call forth all its energies.

On the advantage of importing machinery from France, I confess I am somewhat skeptical—while engaged on my mission to that country as agent to the "Beet Sugar Society of Philadelphia," it was my business to examine all the establishments which lay in my route, and to which I had the most unlimited means of access, by letters of introduction, furnished by some of the first men of this country and of England; and I am sure my excellent and intelligent friends in France will permit me to say; and I do it not in disparagement; their machinery is far inferior to that with which I have been engaged, since the time that I returned from that mission, an event which was the means of an introduction to Jos. S. Lovering, Esq., a gentleman to whose generous and unreserved communications in the business of refining, I am indebted for information and experience of the highest order, and which I could not elsewhere have obtained; and which enables me to form an opinion on the subject of machinery, which is, I confess, unfavorable to that at present in use in France.—I repeat, however, the stimulus which will accrue to the undertaking, from the circumstance of their agent *seeing and feeling* the facility with which sugar is made from the beet, will be of the greatest importance; insuring to it—if it be commenced with a sufficient capital, with an abundant supply of roots, and perfect machinery—the most *perfect success.*

From three years experience, in a situation unexampled in the means of information, and where my attention has been led to the consideration of improved machinery for the manufacture of beet sugar, as well as for the cultivation of the crop, I have been enabled to construct models of the different apparatus necessary, which will, I conceive, facilitate the business, and cost much less in the fabrication, than do those in general use, where the improved modes of working have been adopted—an important object in a country where the high price of machinery compels purchasers to go to foreign countries for their supplies. The models are,

1. A set of three Harrows, on a new construction.
2. A Drill, for sowing the beet and other seeds.
3. A Barrow Hoe, for cleaning the crops.
4. A Hand Hoe, French pattern.
5. A Root Cutter.
6. A Self-Skimming Double Milk Pan.

FOR THE SUGAR HOUSE.

7. A Rasp, for crushing roots.
8. Cloth and Cloths for pressing.
9. A Stand and Bags for sediment and scums.
10. A Press, on a most convenient principle.
11. A pair of Defecating Pans, new construction.
12. French Tap, for drawing off clear.
13. Apparatus for washing animal carbon.
14. Do. for drying and re-calcining do.
15. Mechanical Filter, new construction.
16. Chemical Filter.
17. Steam Generator, Boiling Pan and Evaporator, united.
18. Machine for evaporating from 7° to 2°.
19. Steam Generator and Boiling Pan, united.
20. Smoke-consuming fire places.
21. A Beet cutter, for the desiccating process.

* To a person of capital and enterprise, wishing to enter business, and casting about for a suitable employment, I would say, where will you find one more healthy, interesting, or profitable? An untrodden field is open before you, with no fear of too many competitors—no

* The business of sugar making from the beet—unlike many other businesses—may be taken up and pursued to the end; or if difficulties arise so as to prevent the accomplishment of the undertaking, all is not lost—in many cases nothing need be lost—for of the possibility of such an event be kept in view at the time of the erection of the buildings, they might be made to take a form which will permit them to be turned to other purposes; and a great portion of them will be required for the housing and feeding of the cattle and sheep with the crops, with space for steaming their food and other purposes, as also for protecting the roots for winter feeding.

I once knew a gentleman who, in erecting a long row of warehouses, placed blank windows and doors in every story, and arranged the interior parts so that, in the event of the failure of the business in which at that time he was engaged, they might readily be converted into dwelling houses—the result justified his prudence and foresight, for a war put an end to his importations; but the income which he now derives from the rents of those houses makes ample amends for his disappointment—just so might it be with the cultivation of the beet for the purpose of manufacturing sugar; if the *event* be relinquished, the expending of the root in the rearing and fattening of stock, will prove a source of ample profit and pleasure to all who are engaged in it. J. P.

cause for alarm, lest your neighbor, whose place of business might be better situated than your own, might draw away your customers, or that the adjoining premises might be taken by some one, whose interests will clash with yours—no dread, that the present fashions might change, and leave you with a heavy stock on your hands, or that a new one might spring up, and call for fresh purchases, which cannot, perhaps, be made without sacrificing at auction the profits of years. In the beet sugar business, every neighbor is a friend; and I have never seen the observation verified in a more striking manner, than among those engaged in that employment in France; they form a distinct class of agriculturists; many among them are men of the highest attainments, and in the service of the government, and of the first standing in society. The success which now attends the manufacture of sugar in France, where considerably more than half the supply of the whole country is made from the beet, is to be attributed to the untiring perseverance of the present Mons. Crespel Delisse of Arras, and Marshal Marmont, Duke of Ragusa—but for these noble and scientific men, the business would have sunk; they, however, determined to pursue it, through evil and through good report; and the result has justified their highest expectations. To the former of these gentlemen, I owe a debt of gratitude, for the kind and liberal manner in which he instructed me in his mode of working, at his fine establishment at Arras; a mode which was considered, by a committee sent from Prussia to examine the different methods pursued throughout the sugar districts, superior to all others, and by which he has accumulated a large property.

The great diversity of employments, connected with the business of *sugar growing*, renders it very delightful—first, there is the agriculturist, with his improved machinery, plows, harrows, scufflers, cultivators, drills, &c., vieing with his neighbors, *who* shall grow the largest and the cleanest crops; then the dairyman, with his improved Durhams, competing with *all the world* for quantity and quality of milk, and fat veal, and rich butter; then the cattle feeder, with oxen of seventy score; and the feeder of sheep, and *the maker of house lamb*, without the risk of rot or scab; with his flock under his eye, and managed with the greatest ease and regularity; and his stud of horses and brood mares, "beautiful to look upon!" and lastly, the sugar house, with its machinery and well appointed apparatus, as true as clock work; calling into requisition his chemical science, as well as his mechanical skill; and all occupied in the preparation of an article for which there is as regular a demand as for bread, and which will always obtain as ready a sale in the market, maugre all the changes of fashion, by which many traders might be prostrated—and all conducted without hurry or confusion—no fear lest a premature frost might put a period to his labors before half the work is done, (as is often the case in the cane districts in this country,) or that the same evil might assail his next spring crops, blasting at once his hopes for the whole year—for of all the crops that are cultivated, perhaps the sugar beet is the most secure in this respect, as the time of sowing might be delayed, if the season is unpropitious, and the time of harvesting be expedited in bad seasons, without essential injury to the crop, or with less evil than would accrue to any other.

At the same time, as has already been observed, the business of sugar making ought not to be taken up by agriculturists generally: there must be many consumers to one producer, or there will be no purchasers—and if this law of reason was observed and reflected upon, there would be fewer cases of *mania*.* All, however, can indulge in the cultivation of the beet, but it is those only of capital and enterprise who should engage in the manufacture of sugar therefrom; and not even then, until due provision has been made, and the business placed in the hands of some person who is competent to conduct the different operations to their final results—then it must succeed, and better perhaps in this country than in any other in the world.

* The puerile idea, so sedulously propagated at the first introduction of the sugar beet to notice, that "every occupier of a sixteenth part of an acre of land could grow his own sugar and kill his own mutton," has brought the subject into utter contempt; and it will not be able to rise to the consideration which it merits, until it is taken up in the way here recommended. What man *has* done, man *may* do—and it will not be readily believed that what is done in France, not only without difficulty but with the greatest facility, cannot be done in this country, where nature and the arts have done so much to distinguish it above all others.

Philadelphia, Sept. 20, 1839. JAMES PEDD.

* I remember a plain farmer called upon me and said, 'I want, Master, to make my own sugar: people talk about the good of the country, and this and that, all which I don't pretend to know any thing about; *but I want to make sugar;* so if you'll come up and put us in the way on't, I'll pay you for't. I got a quarter acre of fine beets, and my wife got plenty of pots and kettles and pans and buckets; as many, I guess, as you'll want; but if you want any thing else, why you can bring it up with you; *I want to make sugar.*"

From the Farmer's Cabinet.

Artificial Divisions of the Farm.

Fences in rural economy comprehend in general, every sort of enclosure that is employed for shelter—or designed for the protection of the lands thus enclosed, from the intrusion of cattle. They are of different kinds, depending on the various circumstances of soil, situation, the kinds of materials at hand most suitable for the purpose, and the convenience with which they may be obtained. Where a country is entirely in tillage, it is of less importance that farms be divided by artificial barriers; but wherever live stock is kept, this is essential to the proper keeping of the animals, and to the profitable occupation of the grounds; and besides the purpose of retaining and seperating the animals of different kinds from one another.* Every person about to erect

* Low's Elements.

a fence should have special regard to three essential points,—durability, economy, and neatness of appearance.

"Poor fences are of incalculable mischief to the farmer." They are frequently the means of disturbing that good neighborhood, which would, in many places, otherwise exist without interruption, if each farmer would attend to having his fences well and substantially made, and kept constantly in good order and repair. Unless fences are made sufficiently high and strong, there can be no safety to the crops—the cattle, selecting the weakest points are apt to break over them, and thereby imbibe vicious habits.

The descriptions of fences and the method of their construction, depend wholly upon the soil, the various kinds of materials at hand or most readily obtained. There are a variety of kinds of fences or enclosures used; the log fence, the post and rail, the worm or zig-zag, and the stone—which, when the materials are on the ground, and the fence is properly built, is by all means the most durable, economical, and secure—the ditch, the paling, and the live hedge. But in whatever manner, and of whatever materials they may be constructed, they should be frequently surveyed with a critical eye, and all defects rectified without the least delay.

The growing and alarming scarcity of timber in the United States, renders the enclosure of farmers a very expensive item. It therefore is the interest of the farmer to preserve his fences, now in good condition, as long as possible in that state—and, in the construction of new ones to exercise economy, by having them erected, of whatever materials, in a most substantial and durable manner. The saving of a few dollars in the outlay, is only apparent, not real. We must not be understood as advocating extravagance in this or any other department of rural affairs—but we do maintain that what is worth doing at all, is worth doing well, and that, therefore, in the direction of fences, the best and most durable materials should be selected; and the whole put together in a solid, substantial, and workmanlike manner.

Almost every individual has an idea that he fully understands the process of *making rail fence*, which is a simple process, and yet, perhaps, not more than one in twenty has any established system or fixed rules, by which their operations are to be controlled in this essential and important department of farm labor. A writer in the Genesee Farmer, says that no sight is to him more pleasing than a well made rail-fence. His system of construction is briefly as follows:

"To ascertain when a sufficient number of rails have been drawn for a given distance of fence. 1.—If the fence is to be seven rails high, and twelve feet long, place them in piles of ten each, in a continuous line, touching each other. 2.—Place, in range, stakes or poles at intervals to designate the line—prepare a pole seven or eight feet long, well sharpened at one end; (the end ought by all means to be pointed with iron.) At about eighteen inches from the pointed end, fasten a rod at right angles with the pole, and extending thence from three feet, two, four, or six inches, according as the fence is exposed to winds. Put down this pole in a range with the poles designating the line, and the end of the rod will show the place for the corner. Place then, for a foundation, a good sized flat stone, and you are ready to commence operations. 3. The bottom rail should be straight, place the largest end forward on the stone, and the other end crossing the preceding rail at the end of the rod of the ranging pole, so that the corners on each side be in exact line. 4. Let the five following rails be placed the smallest end forward, and notched, if necessary, to make them lie steadily. 5. Let the top rail be heavy and well notched, the largest end placed forward, which completes the work, leaving your fence level, and of equal height throughout."

Various substitutes have been proposed for the common post and rail fence, the most prominent of which will be hereafter noticed. Notwithstanding the great scarcity of timber in the Atlantic states, which is a matter of great solicitude, in view of obtaining in future a supply of timber suitable for fencing alone—the system of post and rail fences—with proper management on the part of farmers may be easily and advantageously perpetuated.

James Worth, Esq., of Sharon, near Newton, Bucks county, Pennsylvania, a gentleman who has devoted much of his time, talents, and fortune, in promoting the general interests of agriculture—after a minute and careful examination of the claims of all the varieties of fences used and recommended throughout the country, came to the conclusion that the post and rail, and the stone fence, (wherever the materials for its construction abound) was best adapted to the country and the interests of the farmer. Having determined in favor of the post with five rails, for general purposes, he says:—

"I turn my attention to that particular kind, and will proceed to provide for its future supply. Plant an acre of ground with chestnut and locust seeds, five-sixths of it with chestnut for rails, and one-sixth with locust for posts. Four trees will grow on a perch, making six hundred and forty on the acre. I suppose that forty of them will fail, leaving six hundred trees, each of which will produce in thirty years, and every twenty to twenty-five years afterwards, twenty rails or posts, which will yield at each cutting twelve thousand posts and rails, or two thousand pannels. Then say the acre of land is worth eighty dollars, it will reduce the materials to four cents per pannel, which with making and putting up will not exceed twenty-five cents. In point of durability I am persuaded that it will be exceeded by none, except the stone, and it will have an advantage over that, by being moveable when necessary."

Mr Worth's reasons for preferring the locust post and chestnut rails are thus stated. It occupies less ground than any other—the borders of the fields are easily kept clean—the great durability of the materials—the ease with which they may be obtained by every farmer, as the trees flourish in a tolerably good soil in every part of our country. One acre thus appropriated is sufficient for a farm of five hundred acres—and consequently, a quarter of an acre will be abundant for a farm of one hundred acres. To what better or more profitable purpose can so small a portion of the best land on the farm be appropriated? The only objection is, that there is no immediate availability—that from twenty-five to thirty years must elapse before the trees can be made into rails. This objection is as unsatisfactory as it is unsound. There are thousands who, if they were *now* to appropriate sufficient ground, according to the size of their farms, and plant it as proposed, may with the blessing of Providence, live to enjoy its advantages for years. What! not plant an orchard, or a grove of locust, or a cluster of maple, because we may not live to enjoy the benefits thereof! Such sentiments should never find an abiding place in the bosom of an American farmer; for every intelligent man knows full well, that every measure of this kind tends not merely to adorn and beautify his plantation, but also greatly to increase its prospective value. Every farmer should see without delay to having his grounds suitably stocked with trees.

It is estimated that a fence of locust posts and chestnut rails, with very little repair, will last for at least sixty years, so that the necessities of the farm would require only the third cutting of the timber—the two intermediate cuttings, yielding thirty thousand posts and rails, are ready for a market, which would be readily found, and which at the low rate of five dollars a hundred, would give the owner of the farm an average gain of twenty dollars, for each and every year the acre of land was thus appropriated—in addition to furnishing all necessary fencing for the farm. This, dating from the commencement, is a handsome profit.

Cedar and rail fence.—James Garnett, Esq., a name familiar to the reading farmer, says: "I can affirm, from my own experience, that a cedar post and rail fence without any ditch, the materials for which, grow spontaneously over a large portion of Virginia, and will grow by planting almost any where in the United States, will last, without the slightest repair, from thirteen to fourteen years; and may be made to last six or eight years longer, by a few occasional supplies of rails and posts. I also know from my own experience, that either cedar, chestnut, or locust, the last of which is more durable than either, will in fourteen years grow sufficiently large to make the fence anew, if planted by the side of it one or two to each pannel.—*Mr. Garnett's Address before the Fredericksburg, Va. Agricultural Society.*

A great diversity of opinion has prevailed among many persons, as to the *best time for cutting timber* so as to ensure its greatest durability. Some recommend the summer season, some the fall, others the winter when the sap has generally descended; while others again who have entered into a careful investigation of the subject have come to the conclusion that the most suitable period for felling timber, is in the spring while the sap flows freely. This will no doubt be considered as rank heresy by many of those who cannot regard with complacency, what they deem innovations on the old

and favorite systems.' But this opinion is gaining ground; from the simple circumstance that it is well sustained by incontrovertible facts.

An old and observing friend, Capt. Cooper, of the Navy, furnished for publicalion some time since in an agricultural work, a variety of facts, touching this important matter; from which it clearly appears, that spring, that is, while the sap is flowing freely, is the best time for cutting timber.* The late Joseph Cooper, Esq., warmly advocated this system. In the same paper, page 4, is a communication recommending the month of August, within one day of the time when the moon is full, as the best period for cutting all kinds of *oak*. But it is urged, in order to *guard* it from decay, to immerse the wood, immediately after it is cut and split to the dimensions required, in lime and water, in which it is to remain a year, affording time for the particles of lime to penetrate the pores of the wood. This lime water is to be frequently agitated. This process requires a vat, which may be sunk in the ground at a little expense. The water and lime should be of the consistence of white-wash. If the durability of the timber is promoted by this process, it is evidently owing to the antisceptic quality of the lime-water, with which it is saturated, and not to the mere circumstance of cutting the timber in the month of August.

Joshua Howard says, that from twenty years experience in the preservation of timber, the best time to cut it to insure durability, is when the tree is in its greatest vigor—which, in the latitude of his residence, Dearbornsville, N. Y., is about the middle of June. He cites a case in which a man was convinced against his will. A farmer in North Carolina wishing to fence a certain lot, went to work according to the old theory, and cut his rail timber during the full of the moon in February. When he came in May to put up his fence he was deficient about forty panuels—he went into the woods, cut the requisite quantity, and put it up as the only alternative. Ten or twelve years afterward on examining his fence, he was exceedingly surprised to find that the rails cut and split in May were infinitely more sound than those cut and prepared in February. There are thousands of similar cases.

A great variety of plans have been proposed for the preservation of timber. The late Samuel Preston, of Stockport, Pa., was satisfied from experience, that posts set with the top part in the ground will last from three to four times as long as when they are set with the butt-end down. Daniel Longstreth says, that penstocks and other timbers exposed to wet or dampness near the water wheels, are placed by many mill-wrights with the top end downwards, as they are found to be more durable than when placed in a different position. *Charring posts* has been strongly recommended and extensively practised, without, however, answerng fully the expectation of its advocates. *Wood tar* has been recommended as a preservative of timber. A correspondent of the Farmers' (Va.) Register, cites several very interesting cases, which go to prove that posts cut, and put in the ground *green*, will remain perfectly sound many years after well seasoned posts, in the same line of fence, in the same soil, and put in at the same time, have entirely decayed. We need, however, further experiments on all these points. J. M.

From the Farmer's and Mechanics Journal.

MR. LAWRENCE—Permit me through the medium of your paper, to give some account of the malignant disease prevailing among cattle in this vicinity, now well ascertained to be '*The enlargement of the Gall*,' combined, perhaps, with a slight touch of the '*Dry Murrain*,' I am happy to state, that I have learned much respecting this fearful malady from various farmers residing in this region, but more particularly from our respected fellow-townsman, John Denniston, an intelligent gentleman, whose accurate knowledge in the diseases of cattle, acquired after many years experience in one of the most noted grazing districts of Ireland, enables him to state with much confidence, the character of the disorder, and the best practical course of treatment.

The number of valuable cattle lost in this vicinity the present season by the prevailing distemper, is perhaps greater than many have supposed. Mr. Henry Dirstine has lost seven head; Mr. Jesse Hawkins, at least four; Mr. Moulton, two; Josiah Tracy, one; Silas Tracy, one; Mr. Richmond, one; Mr. Flint, one; and Dr. Butler, one. Besides these, and perhaps others, Mr. Peter A. Remsen has lost four valuable cattle; among which was one of his fine imported cows; and his loss alone cannot be estimated at less than one thousand dollars. Such, then, being the fatality of this prevalent complaint, it will be prudent for farmers to be on their guard, and leave no means untried, to ward off, if possible, this threatened calamity.

There are various causes to which to attribute the existing disease. It is confidently believed, that gritty hay given cattle the preceding winter will originate the disorder, though some months thereafter should elapse before any visible symptoms should be discovered; and the tall dried grass of meadows unmowed the previous year, or of pastures not eaten down, has a very injurious tendency, as it often clogs in the *manifolds*, and proves indigestible. An overflow of pastures by heavy rain, as is sometimes the case, so as to grit the grass, is also very hurtful; but *unwholesome water* is, if possible, the most certain cause of this unhappy malady;—and the extreme dry weather for the past few weeks, has had a very unfavorable influence upon the water. None need be told, that *water to be healthy, must be pure;* and this remark is equally applicable to man and beast.

It is not very easy to discover the premonitory symptoms of this disease, unless special care is taken to ascertain whether these premonitions exist. Mr. Denniston is decidedly of the opinion that some indications may be noticed some time before the actual attack; for instance, after dusk, a dizziness may be discovered, eyes glassy, and these symptoms continue to increase until others are very perceptible, such as a lopping of the ears, a general dullness and depression of spirits, though the appetite seldom appears impaired. When these premonitions are discovered, let no time be lost in efforts to check the complaint. For a full grown animal, give three pounds of dissolved salts. Epsom are preferable because they will dissolve in one third the quantity of water that is requisite for the Glauber, and are equally as safe. Immediately after, give the animal a quart or two, or even more, of thin meal gruel. Should this fail to produce an operation in the course of four or five hours, then administer, according to the size of the animal, from one to three pints of the spirits of turpentine; and, in a few minutes after, give from one to two quarts of sweet oil, linseed or fish oil will answer.

Mr. Denniston says no one need be afraid of the turpentine, for he has often given it in such quantities, and never experienced any injury, but has almost invariably seen beneficial results from its use. Though the turpentine should make the mouth and throat of the animal somewhat raw, the stomach, nevertheless, is proof against any such effect. In administering liquid medicines to cattle, it should be done as humanely as possible; and to this end, let the requisite article be put into a long, slim, smooth-necked junk bottle, and see to it that the bottle is handled very carefully, so as not to injure any of the tender glands, nerves, arteries, and muscles of the mouth and throat, nor the roots of the tongue, for such inhuman carelessness sometimes produces dangerous inflammations, and even ulcers. After a sufficient time has elapsed for the operation of the turpentine and oil, and they fail to produce the desired effect, then, as a last resort, when every other hope has gone, from twelve to forty grains of calomel may be administered, in an oblong roll of dough of two inches in length and one fourth as thick, mixed with a small quantity of soft soap. It should be borne in mind, that it is extremely dangerous to give calomel in cold weather, or suffer the animal to drink cold water soon after taking it, so that during cold weather, when salts, turpentine and oil have utterly failed to operate as a purgative, better repeat or even increase the dose, or try some other powerful medicine, than venture to use calomel. For this year's calves, one pound of salts would be sufficient; and should they not produce an operation on the bowels, then administer a pint or quart of oil; this course of procedure will seldom fail of effectually checking the complaint.

The following remedy for the *Enlargement of the Gall*, is highly recommended by a practical farmer; and, in the early stages of the disease, would doubtless prove as it often has done, a very safe and effectual medicine: Take a fresh egg, make an opening in one end of the shell, and separate the yolk, leaving the white, then fill nearly up with soot, add a tea spoonful each of fine hen-dung, salt, and pepper, mix the composition well together, and put the whole, shell and all, down the animal. Repeat the dose three mornings in succession, then skip three; thus continuing till nine such doses are administered.

I saw an ox dissected, a few days since, that died of the prevailing disorder; and the *gall-bladder*, which, in a healthy state, is about the size of a goose egg, was nearly three times as large; and the *spleen*, or *melt*, was fully double the usual size, and, withal softened, and congested with blood, and some blood had apparently oozed through the investment. On opening the bladder, the urine presented a healthy appearance; nothing could be seen of the black, bloody matter, so universally attendant on the *Bloody Murrain*. The *manyplus*, or, as it is generally called the *manyfolds*, or *manifolds*, or the *third stomach*, was full—even clogged with food, but of a soft consistency; and it was this symptom that gave evidence of, at least a slight touch of the *Dry Murrain*. All these peculiarities, I am credibly informed, have existed in every case in this vicinity, where dissection has taken place.

As a preventive of this and all similar diseases to which cattle are subject, farmers should see to it that good wholesome water is provided for their stock. It is the opinion of S. Benedict, Jr. Esq., that it would be advisable frequently to give cattle air-slacked lime mixed with a sufficient quantity of salt to render it palatable; and it looks reasonable that it should counteract the bad effects of impure water. The hint is a safe one, and all can avail themselves of it. Mr. Denniston is fearful that the existing complaint may be yet more prevalent a few months hence; farmers, therefore, cannot be too careful in guarding against it. Should any cases of this malignant disease hereafter occur in this vicinity, and the remedies here recommended, or others be administered, it is to be hoped that the result will forthwith be made public, for the common good of all concerned. L. C. D.

Alexander, Oct. 10, 1839.

Rohan Potatoes.

MESSRS. ALLEN & LOUNSBURY—I send you a specimen of Rohan potatoes which I have raised this season. Although I planted them rather too late, the yield is full double that of my other potatoes. I find this variety of potatoes, which has recently been imported from Europe, full as valuable in all respects as recommended. The advantages are, that the yield is large and the quality excellent—there is a great saving of seed, as only one or two eyes should be planted to a hill, and the hills four feet apart each way. As the potatoes are large and lie compact, and the hills are distant, a person can dig and take care of four times the quantity he could of other potatoes in a given time. I shall hereafter plant no others except a few Mercer's for early use. I leave some for sale, for seed in Auburn, with R. C. Steele and H. Wilson.

They should be planted early, at a depth of five or six inches, and afterwards cultivated with the plough and hoe, and well earthed up. Yours, &c.

U. F. DOUBLEDAY.

Scipioville, Oct. 10, 1839. [*Cayuga Patriot.*]

Agriculture among the Romans.

Agriculture, among the Romans, was the *great* business. The first men studied its principles, directed its operations, and wrote treatises for the instruction of the unlearned. Some of the writings of Cato, Varro, Virgil, Columella, Pliny and Palladius have reached the present age. They show a familiar acquaintance with all the details of farming. The wealthy citizens who spent their winters in the city and their summers at their villas in the country, personally superintended every department of their business. "Though the operations of agriculture," says the author of Ancient Husbandry, "were generally performed by servants, yet the great men among the Romans continued to give particular attention to it, studied its improvement, and were very careful and exact in the management of all their country affairs. "After the landlord," says Cato, "has come to the villa, and performed his devotions, he ought that very day, if possible, to go through his farm; if not that day, the next. When he has considered in what manner his fields should be cultivated, what work should be done and what not; next day he ought to call the bailiff, and inquire what of the work is done and what remains; whether the laboring is far enough advanced for the season, and whether the things that remain might have been finished, and what is done about the wine, corn and all other things. When he has made himself acquainted with all of these, he ought to take an account of the workmen and working days. On holidays, old ditches may have been scoured, a highway repaired, briers cut, the garden digged, the meadows cleaned from weeds, twigs bound up, thorns pulled, (bread-corn, maize, pounded,) and all things made clean. When is fully satisfied in all these things, and has given orders for the work that is to be finished, he should inspect the bailiff's accounts; his accounts of money, corn, fodder, wine and oil; what has been sold, what exacted, what remains, what of this has been sold, whether there is good security for what is owing. He should inspect the things that remain, buy what is wanting for the year, and let out what is necessary to be employed in this manner. He should give orders concerning the works he would have executed, and leave his orders in writing. He should inspect his flocks, make a sale, sell the superfluous wine, oil and corn; if they are giving a proper price, sell the old oxen, the refuse of the cattle and sheep, wool, hides, the old carts,

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* Farmers' Cabinet, vol. iii. p 29.—One fact we give.

"J. C. [Joseph Cooper, Esq.] informed me that a detachment of British troops crossed from Philadelphia on the 1st day of May, in 1777, and on the 2d commenced cutting down his woods for the supply of the army, and at the same time to burn up his fencing, which they accomplished. "But," said he, "they taught me the proper time to cut timber to make it last. After they marched off, I found many trees that were not cut into cord wood; those I split into rails, believing at the same time they would soon decay, from their being cut in the spring—but I have been agreeably disappointed,—most of them are as sound now as when made into fence." This he related five and twenty or thirty years after the peace of '83.

old iron tools, &c. Whatever is superfluous he ought to sell. A farmer should be a seller, not a buyer."

And Columella directs the proprietor, on returning to his farm in the spring, "to view his marshes, inspect every part of his farm, and observe whether in his absence, any part of discipline or watchfulness has been dispensed with; and whether any vine, any tree, or any fruits are missing. Then likewise, he ought to review the cattle and servants, all the instruments of husbandry and household furniture. If he continues to do all these things for some years, he will find a habit of discipline established when he is old; and at no age will he be so much impaired with years as to be despised by his servants."

These directions are valuable, even in our day, to landed proprietors, particularly in the south, whose farms or plantations are managed by overseers or agents. There is great truth in the saying of Poor Richard, that a man who would thrive by the plough, must himself either hold or drive.—*Cultivator.*

HYDE PARK, October, 9, 1839.

To the Editors of the Telegraph—

Gents,—I have sent you a sample of Sugar Beets and Mangel Wurtzel raised on my farm. There are five of each; the white are the Sugar Beets, and the red, Mangel Wurtzel. My crop of Beets which I am now harvesting will amount to from 1000 to 1200 bushels, from less than an acre of land, the average cost of raising which will not exceed six cents per bushel. My largest six sugar beets weighed sixty-seven lbs., the heaviest one 13½ lbs.

I think a notice of the above in your paper would induce more of the farmers of Dutchess to raise them.

Yours, truly, A. T. C.

We stated week before last, that we feared our farmers did not pay that attention to the raising of roots that their importance demands. Subsequently we have been through a section of Hyde Park, and there saw several acres of them. We doubt not more and more attention will be turned to their cultivation....*Poughkeepsie Tel.*

Berkshire Hogs.

THE subscriber has for sale a few full blood, and half blood, Berkshire Pigs. WM. PITKIN.
October 26, 1839.-2tw

Berkshire Pigs,

DIRECT from the stock of C. N. Bement, Albany, for sale by THOMAS WRIGHT.
October 19 1839.-w3w Near Macedonville, Wayne Co. N Y.

THOROUGH BRED DURHAM BULL FOR SALE.

MAYDUKE.

COLOR, a fine roan. Beautiful symmetry in all his points. He was calved upon the 13th of February, 1837. Was got by Sir Walter; Sir Walter was bred by Mr. Chrisp of Doddington, Northumberland, and was imported by Mr. Fergusson into Canada in 1834.—The sire of Sir Walter was Batchelor, Herd Book 1616. Dam, Sprightly by Barmpton, (1677); Grand dam by Waverly, (2819); Great grand dam by a son of Washington, (674.)

Cherry was also bred by Mr. Chrisp and imported by Mr. Fergusson. Her color roan. She was got by Dunstan Castle; grand dam by a son of St. Albans, [2584]; great grand dam by Lawnsleeves, [365.] Cherry was sold into Kentucky, last year, for 300 dollars. For further particulars, apply to the Hon. ADAM FERGUSSON, Nelson Post Office, Upper Canada.
Nelson, October 8, 1839. oct 19-w1m

Splendid Bulbous Roots.

THE subscriber has just received, and offers for sale, a large assortment of Bulbous Flower Roots, comprising the finest varieties, just received from Amsterdam, viz:

Hyacinths; (double and single,) dark blue, porcelain blue, red, rosy colored, pure white with yellow eye, white with rose eye, and yellow with various eyes, 25 cents, or $2 50 per doz.

Tulips; splendid variegated, red, yellow and mixed, 12½ cents each, $1 per dozen, assorted. The assortment of fine tulips is very large, an object for those who wish to form a tulip bed.

Crown Imperials; assorted, of the most splendid colors and showy flowers, large roots, 25 cents each, (extra fine roots.)

Jonquilles; sweet scented, fine roots, 12½ cents each, $1 per doz.

Polyanthus Narcissus, fragrant, white with citron cups, extra sized roots, 12½ to 25 cents each.

Double Narcissus; fragrant, of all colors, 12½ cents each, $1 per dozen.

Spring Crocus, of all colors, 6¼ cents each, 50 cents per dozen.

Large Gladiolus, or Sword Lilies, 12½ cents each, $1 per dozen.

The above roots are of the same superior character as those sold the last season, and which gave such universal satisfaction; some of the Double Hyacinths having produced bells one inch and eight-tenths in diameter.

Purchasers are requested to notice that the above roots are not purchased at auction, are all remarkable for their size, and for the beauty and delicacy of tint of their flowers.

It is unnecessary to enter into any detail respecting the merits of Dutch bulbs—their superiority over those of all other countries is well known—and for blooming in the winter season on glasses or in pots no other but Dutch roots will answer. From the subscriber's long experience in this peculiar branch of his business, he flatters himself that every Hyacinth (in particular) in his collection, will be found of the most beautiful description. Prices moderate.

WM. THORBURN, Seedsman,
North Market-street, opposite Post Office, Albany, N. Y.
N. B. Directions for cultivation gratis. Oct. 12, 1839.-w3t

Notice.

I will pay the highest cash price for Barley, at Whitney's Distillery, in the city of Rochester. sept14-w3t AMOS SAWYER.

South Down and Bakewell Bucks For Sale.

THE subscriber will sell from fifteen to twenty of his South Down and Bakewell Bucks, mostly the latter breed, at his farm, West Hill, Skaneateles, Onondaga Co. N. Y., if applied for soon.
October 12, 1839.-w2t* EDWARD BISBEE.

Farms for Sale.

THE subscriber offers for sale, a Farm containing 480 acres, situated in the town of Collins, Erie County, 2½ miles east of the village of Lodi, and 34 miles south of the city of Buffalo. The surface is undulating; soil principally a deep sandy loam, well adapted to grain or grass, admirably well watered by durable springs of pure water. 170 acres under good improvement, with commodious buildings. The timber land is covered with a heavy growth of Oak, Chestnut, Hemlock, White Wood, Cucumber, White Ash, Beach, Maple, and a sprinkling of Pine.

Twenty-five per cent of the purchase money will be required down, a liberal credit given for the residue.

Also—a farm containing 450 acres situated in the town of New Albion in the County of Cattaraugus, 2½ miles from the village of Waverly, and 11 miles south of Lodi. About 100 acres under improvement, and well watered. The timber is principally Beach, Maple, Elm, Bass Wood, White Ash and Butternut. This farm is peculiarly adapted to grazing. JOSEPH PLUMB.
Lodi, Erie County, September 20, 1839. oct5w8tm2t

For Sale.

6,000 Morus Multicaulis Trees, by the subscriber, at his residence in the town of Gates. They are of the very best quality, and will be sold on liberal terms, by applying by letter, [post paid] or at his residence J C BRAINERD,
Gates, October 2, 1839. w6t*

Morus Multicaulis.

S. E. GIBBS & SON, who have been Mulberry and Silk Growers, for several years at Troy, N Y. wishing to increase their operations, have located themselves on Long Island, 5 miles south of the city of New York, and about 2 miles north of Fort Hamilton, on the west end of the Island, where the Steam Boats Monmouth, Wave, and Osirius, pass and repass daily. They offer to sell a part of their Morus Multicaulis, Alpine and Expansa Mulberry Trees, from 20 to 25,000 deliverable in November next. The trees are all growing in fine order, some of them are over 6 feet high, and very liberally branched. Their genuineness will not be questioned by any one who will call and see them which will be attended with very little trouble or expense being so near the city of New York.

They will be sold in lots to suit purchasers. Likewise a few thousand Silk Worm's Eggs, consisting of Sulphur, Peanut, Long Grays and 2 crop White; and at the same place a number of bushels of the celebrated Rohan Potatoe can be had.

Any communication for us must be addressed to Brooklyn P. O. Long Island.

Reference to Burdick & Wright, 235, Front st. New York.
Brooklyn, Sept. 5, 1839. sept14-w8tm2t

Morus Multicaulis and Morettii.

ELLWANGER & ROGERS are prepared to make contracts to any amount, for genuine Morus Multicaulis and Morus Morettii; the Morrettii are hardy, and will stand the winter in this country.

Any persons living at a distance and wishing to purchase a large quantity to sell again, shall be supplied at the very lowest wholesale prices so as to admit of their selling at the same prices as other persons, and make a very handsome profit. Also Silk Worms Eggs.

E. & R. will supply orders to any extent for every kind of Fruit & Ornamental Trees, Shrubs, Vines, Hardy Plants, Bulbous Roots, Greenhouse or Parlor Plants, &c. &c.

September and October is the time for planting Bulbous Roots in the open ground, such as Tulips, &c. of which they have a very fine collection for sale. Cash paid for Grass Seed, Plum, Peach Stones, and Apple Pips. Greenhouse corner of Buffalo and Sophia-streets Rochester, N. Y. sept14-wtf

For Sale.

A FEW thousand of the Morus Multicaulis trees, by the subscriber, at his farm, near Fairport, in Perinton, will be offered for sale, in lots to suits purchasers, on liberal terms. Persons who can make it convenient to call and examine them on the premises are requested to do so, before purchasing elsewhere All letters addressed to the subscriber shall receive prompt attention. ZERAH BURR.
Perinton, Sept. 5, 1839. sept14tf

Notice.

CASH will be paid for any quantity of Peach and Plumb stones delivered at the Rochester Seed Store. M. B. BATEHAM.
aug31

Morus Multicaulis.

THE subscriber is prepared to furnish Morus Multicaulis (Mulberry) Trees, in large or small quantities, delivered any time this fall after the first of October. The trees will be raised from Roots, Layers and Cuttings, of thrifty growth and matured wood, and will be sold at prices in proportion to their size. October and November are the most favorable months to transport them to the Western States, or into Canada, or in any direction where they must be sent a distance by water communication. All orders from a distance, by mail, should be sent early, (post paid,) addressed to E. H. MIX,
July 27, 1839.-w6m Avon, N. Y.

Morus Multicaulis Tree Agency.

THE subscriber now offers for sale some choice lots of the above Trees, warranted of the genuine kind. Also, some Brussa and Canton, now growing in different counties of this state, to be delivered in the fall, or on the ground as they now stand, viz:

In Cuyahoga county,	1 lot of		5,000
Do.	do.	1	6,000
Do.	do.	1	4,000
Do.	do.	1	1,000
Do.	do.	1	2,500
Do.	do.	1	800
In Portage county	1		20,000
Do.	do.	1	8,000
Do.	do.	1	6,000
In Stark county	1		4,000
Do.	do.	1	6,000

In Cuyahoga and Portage counties:

1 lot of Brussa	3,000	1 lot of Canton	3,000
1	2,000	1	6,000

Which will be sold in any quantity to suit purchasers, at fair prices, with others, the particulars of which are not yet received, by JAMES HOUGHTON, Agent,
Cleveland City Seed Store.

☞ Persons who are desirous of disposing of their trees through my agency, are requested to forward particulars as early as possible, and the business will be transacted on liberal terms, and agencies are solicited. Cleveland, Ohio, Aug. 17-w3m-m1t

Horse Rakes.

AS some inquiry has been made through this paper relative to Horse Rakes, the subscriber would take this opportunity to say to its patrons, and all others, that he is offering to the public the latest improved Revolving Horse Rake, which can be had at the following places:

Rochester—C. Hendrix. *Auburn*—Hyell, Watrous & Co. *Elmira*—Robert Cevell, jr. & Co. *Burdett*—E. Baker & Co. *Onid*—P. Humrod & Son. *Genoa*—H. G. Bushnell. *Waterloo*—J. L Lundy & Co. *Seneca Falls*—J. C. Chapman. *Geddes*—S. H. Mann. *Syracuse*—Wright & Wheaton. *Ithaca*—Wm. R. Collins *Lenox*—Horace Hall. *Chittenango*— —— Crouse; and many other places not here mentioned.

Those who wish to purchase, would do well to give us a call.
AMOS HOLBROOK.
Whitesboro', June 12, 1839. jun 24

Farmers save your own Clover Seed.

THE subscribers having purchased the exclusive right of making, using and vending, in the counties of Monroe and Niagara, RITTENHOUSE'S PATENT CLOVER MILL, being the latest improvement, and the article now used in Pennsylvania and in Seneca county, would respectfully inform the farmers of those counties, that they will this fall furnish one or more PORTABLE MILLS in each of said counties, to be worked by horse power, which they will take to farmer's barns whenever required, and hull out their CLOVER SEED for them at the very cheap rate of One Dollar per bushel.—These machines will hull from one to three bushels per hour, according to the quality of the chaff. FARMERS will at once perceive the vast saving and convenience afforded to them by this invention, as instead of paying from SIX to SIXTEEN Dollars per bushel for their Clover Seed, and perhaps getting a quantity of Canada Thistle or other foul seed in the bargain, they can now save their own seed, know that it is clean, and have it hulled at their own barns, for the trifling expense of One Dollar per bushel!

For further information, application can be made, either personally or by letter, (post paid,) to the subscribers at Gaines, Orleans county. CHANCY WOODWORTH & CO.
July 27, 1839.-w3m-m1t*

Miner's Patent Pump.

AMOS MINER'S SUPERIOR PATENT PUMPS, for Wells or Cisterns, manufactured by Dagget & Hanson, Jordon, Onondaga County; for sale at Bush & Velie's Store, Exchenge street Rochester, N. Y. G. C. MAURER, Agent.
Aug 24 w&mtf

Agricultural Warehouse and Seed Store.

79 Barclay-street, New-York.

AT this old established stand, the subscribers take pleasure in announcing to the public, that they have made extensive arrangements to accommodate farmers in all articles connected with husbandry, viz:—Agricultural implements, a full and fresh supply of Field and Garden Seeds, Fruit Trees, Durham Cattle, Chinese and Berkshire pigs, 10,000 Morus multicaulis Mulberry trees; Publications on Rural subjects, &c.

Published here the Rural Library, S. Fleet, editor, a few copies of 1st vol. for sale. The object of this work is to constitute a Library at the least possible expense. 2d vol., commencing with Professor Low's Elements of Practical Agriculture, with nearly 250 fine engravigns; subscription $3. Subscriptions received for the Genesee Farmer, Cultivator, &c. &c. J. W. WEAVER & CO.
April 20-wm1v 76 Barclay st. New-York

Rohan Potatoes for Sale.

THE subscriber is ready to receive orders for this valuable Potatoe, to be delivered after the first of Oct. The price will be two dollars per bushel, or five dollars per barrel, delivered on the Canal if required. The quality of this Potatoe is so well established, that last spring many were sold at the seed stores for from 12½ to 25 cents a piece. All communications for the Rohans will be promptly attended to. RAWSON HARMON, Jr.
Wheatland, Monroe Co. N. Y. Sep. 20th, 1839. w6t-m1

Election Notice.

SHERIFF'S Office, Monroe County, Rochester, 22d August, 1839.

A general Election is to be held in the county of Monroe, on the 4th, 5th, and 6th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed. DARIUS PERRIN.

STATE OF NEW YORK, }
Secretary's Office. } ALBANY, Aug. 15, 1839.

To the Sheriff of the county of Monroe.

Sir—Notice is hereby given you, that the term of service of Chancey J. Fox, a Senator for the eighth Senate District of this State, will expire on the last day of December next, and that a Senator is to be chosen in that District, to which the county of which you are Sheriff belongs, at the General Election to be held on the fourth, fifth and sixth days of November next.

You will also take notice that a proposed amendment to the Constitution is to be submitted to the people at the said Election, at which the Electors are to vote, for the election of Mayors by the People—or against the Election of Mayors by the People.

At the same election, the following officers are also to be chosen, viz: Three Members of Assembly, for said County.

JOHN C. SPENCER.
Secretary of State.

Monroe Horticultural Garden and Nursery,

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer
April 1, 1838. ASA ROWE.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms.
April 15, 1838. SAMUEL MOULSON.
N. B. Cash will be paid for a few thousand two years old APPLE TREES.